

Title (en)
VEHICLE MOTION CONTROL DEVICE

Title (de)
VORRICHTUNG ZUR STEUERUNG VON FAHRZEUGBEWEGUNGEN

Title (fr)
DISPOSITIF DE COMMANDE DE MOUVEMENT DE VÉHICULE

Publication
EP 2905193 A1 20150812 (EN)

Application
EP 13843882 A 20130920

Priority
• JP 2012219017 A 20121001
• JP 2013075402 W 20130920

Abstract (en)
Provided is a motion controlling apparatus for a vehicle which can achieve improvement in drivability, stability, and driving comfort. The motion controlling apparatus includes: a control unit for controlling driving forces of vehicle wheels; a vehicle acceleration/deceleration instruction calculator for calculating an acceleration/deceleration instruction value on the basis of a lateral jerk; a first vehicle yaw moment instruction calculator for calculating a first vehicle yaw moment instruction value on the basis of the lateral jerk; and a second vehicle yaw moment instruction calculator for calculating a second vehicle yaw moment instruction value on the basis of lateral slip information. The motion controlling apparatus further includes: a first mode for generating, on the basis of the acceleration/deceleration instruction value, substantially equal driving forces on left and right wheels from among four wheels to control acceleration/deceleration; a second mode for generating, on the basis of the first vehicle yaw moment instruction value, different driving forces on the left and right wheels from among the four wheels to control a yaw moment; and a third mode for generating, on the basis of the second vehicle yaw moment instruction value, different driving forces on the left and right wheels from among the four wheels to control the yaw moment.

IPC 8 full level
B60W 30/045 (2012.01); **B60L 15/20** (2006.01); **B60T 8/1755** (2006.01); **B60W 10/08** (2006.01); **B60W 10/184** (2012.01)

CPC (source: CN EP US)
B60L 3/102 (2013.01 - CN EP US); **B60L 3/108** (2013.01 - CN EP US); **B60L 7/18** (2013.01 - US); **B60L 7/26** (2013.01 - CN EP US); **B60L 15/20** (2013.01 - EP US); **B60L 15/2009** (2013.01 - CN EP US); **B60T 8/1755** (2013.01 - CN US); **B60T 8/17555** (2013.01 - CN EP US); **B60W 10/08** (2013.01 - CN EP US); **B60W 10/184** (2013.01 - CN EP US); **B60W 20/00** (2013.01 - CN EP US); **B60W 30/045** (2013.01 - CN EP US); **B60W 40/109** (2013.01 - US); **B60W 40/114** (2013.01 - US); **B60L 2220/42** (2013.01 - CN EP US); **B60L 2220/44** (2013.01 - CN EP US); **B60L 2220/46** (2013.01 - US); **B60L 2240/12** (2013.01 - CN EP US); **B60L 2240/22** (2013.01 - CN EP US); **B60L 2240/423** (2013.01 - CN EP US); **B60L 2250/26** (2013.01 - CN EP US); **B60L 2260/28** (2013.01 - CN EP US); **B60T 2230/04** (2013.01 - CN EP US); **B60T 2260/08** (2013.01 - CN EP US); **B60T 2270/303** (2013.01 - CN EP US); **B60T 2270/604** (2013.01 - CN EP US); **B60W 2510/18** (2013.01 - US); **B60W 2520/10** (2013.01 - CN EP US); **B60W 2520/105** (2013.01 - CN EP US); **B60W 2520/125** (2013.01 - US); **B60W 2520/14** (2013.01 - US); **B60W 2520/20** (2013.01 - CN EP US); **B60W 2520/30** (2013.01 - US); **B60W 2540/10** (2013.01 - US); **B60W 2540/12** (2013.01 - US); **B60W 2540/18** (2013.01 - CN EP US); **B60W 2554/00** (2020.02 - US); **B60W 2554/80** (2020.02 - US); **B60W 2556/00** (2020.02 - US); **B60W 2710/083** (2013.01 - CN EP US); **B60W 2710/18** (2013.01 - US); **B60W 2720/106** (2013.01 - CN EP US); **B60W 2720/125** (2013.01 - US); **B60W 2720/14** (2013.01 - CN EP US); **Y02T 10/64** (2013.01 - EP US); **Y02T 10/72** (2013.01 - EP US)

Cited by
CN111169293A; CN111797467A; EP4190622A4; EP3363699A1; EP4308429A4; EP3505407A1; CN109969170A; US2022017141A1; US11608108B2; EP3418148A4; CN110171411A; EP3741636A4; EP3530535A4; US11117559B2; US11472396B2; US11872892B2; WO2020015885A1; EP3823854B1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2905193 A1 20150812; **EP 2905193 A4 20160525**; **EP 2905193 B1 20190410**; CN 104703854 A 20150610; CN 104703854 B 20170315; CN 106828111 A 20170613; CN 106828111 B 20190716; EP 3511219 A1 20190717; EP 3511219 B1 20211201; JP 2014069766 A 20140421; JP 5970322 B2 20160817; US 2015239442 A1 20150827; US 2016244038 A1 20160825; US 2017183000 A1 20170629; US 9296374 B2 20160329; US 9623850 B2 20170418; US 9821800 B2 20171121; WO 2014054432 A1 20140410

DOCDB simple family (application)
EP 13843882 A 20130920; CN 201380051395 A 20130920; CN 201710086584 A 20130920; EP 19154106 A 20130920; JP 2012219017 A 20121001; JP 2013075402 W 20130920; US 201314432270 A 20130920; US 201615042417 A 20160212; US 201715455221 A 20170310